

What is Claimed is:

1. A personal surveillance system using a portable surveillance camera, comprising:

5 one or more portable surveillance camera having a wireless communication function and capable of capturing a required image; and

a control device for collecting the image captured from the portable surveillance camera through wireless communication and storing the collected image to perform a predetermined signal processing.

10 2. The personal surveillance system according to claim 1, wherein the portable surveillance camera comprises:

a camera unit for capturing the required image to perform a predetermined image processing; and

15 a wireless module for providing a wireless communication function with the control device.

3. The personal surveillance system according to claim 2, wherein the camera unit comprises:

20 a mini-camera for capturing an image;

a temporary storage memory for temporarily storing data outputted from the mini-camera;

a central processing unit for compressing the data temporarily stored in the temporary storage memory;

25 a compressing storage memory for storing data compressed by the central processing unit;

a display for representing the stored image and a state of the camera in a screen;

30 a searching unit for searching the data by representing the stored data through the display; and

an external port for storing the data in an external storage unit or for providing connection to an external unit in order to download, search, store or process the data, which is stored in the compressing storage memory, in a personal computer.

35 4. The personal surveillance system according to claim 3, wherein the camera unit further comprises an infrared LED for providing a light source for night photographing.

5. The personal surveillance system according to claim 2, wherein the camera unit is capable of regulating a time interval for capturing an image to prevent power consumption.

6. The personal surveillance system according to claim 2, wherein the camera unit has an automatic focus control function with respect to an object located at a distance of more than 40cm.

7. The personal surveillance system according to claim 1, wherein the control device comprises:

a wireless module for providing a wireless communication function with the portable surveillance camera;

a searching unit for accessing the portable surveillance camera through the wireless module to search the data stored in the portable surveillance camera remotely;

a storage unit for storing data received from the portable surveillance camera through the wireless module; and

a display for representing the stored image and a state of the control device.

8. The personal surveillance system according to claim 7, wherein the control device further comprises a network connection unit for enabling inter-access with external apparatus connected to a network to transmit data to a storage unit or a PC which is located at a long distance through the network connection unit or to transmit an event image generated from the portable surveillance camera and/or the control device to a personal portable terminal by being connected to the personal portable terminal such as a PDA or a cellular phone for remote surveillance or to input data from a web camera or a PC camera which is located at a long distance.

9. The personal surveillance system according to claim 8, wherein the network connection unit is selected from one or more from a wire network connection unit, a CDMA module, a GSM module and a wireless network modem, and is configured to be embedded or removable in the control device.

10. The personal surveillance system according to claim 7, wherein the control device further comprises:

a temporary storage memory for temporarily storing data inputted through

the wireless module;

a central processing unit for compressing data temporarily stored in the temporary storage memory;

5 a compressing storage memory for storing the data compressed by the central processing unit; and

an external port for storing the data in an external storage unit or providing connection to an external unit to download, search, store or process the data, which is stored in the compressing storage memory, in an external personal computer.

10 11. The personal surveillance system according to claim 10, wherein the control device further comprises an image/sound decoder for decoding a received image and/or sound data,

the temporary storage memory temporarily stores the image and/or sound data,

15 the central processing unit compresses the image and/or sound data, and the compressing storage memory stores the compressed image and/or sound data.

20 12. The personal surveillance system according to claim 7, wherein the control device further comprises an image/sound encoder for outputting data to an image processing unit.

25 13. The personal surveillance system according to claim 1, wherein the control device is a general PC having one or more ports connectable to an external unit, and the wireless module is attached to the port for wireless transmission and reception.

30 14. The personal surveillance system according to claim 1, further comprises an alarm wired or wireless connectable to the portable surveillance camera or the control device at a close distance.

15. The personal surveillance system according to claim 14, wherein the portable surveillance camera or the control device further comprises:

35 a sensor connection unit for connecting at least one or more sensors selected from movement, fire, heat, gas, door open and close sensors; and

a unit for processing a signal inputted from the sensor and generating an event signal to provide a signal for controlling the operation of the alarm when a predetermined event is generated.

16. The personal surveillance system according to claim 14, wherein the alarm further comprises a unit for generating an event while interworking with an external switch unit such as a bell.

17. The personal surveillance system according to claim 14, wherein the alarm further comprises a unit for controlling setting/cancellation of the alarm function with a wireless remote control.

18. A portable surveillance camera applied to a personal surveillance system, comprising:

a camera unit for capturing a required image to perform a predetermined image processing; and
a wireless module for transmitting and receiving wireless data externally.

19. The portable surveillance camera according to claim 18, wherein the camera unit comprises:

a mini-camera for capturing an image;
a temporary storage memory for temporarily storing data outputted from the mini-camera;

a central processing unit for compressing data temporarily stored in the temporary storage memory;

a compressing storage memory for storing the data compressed by the central processing unit;

a display for representing the collected image and a state of the camera on a screen;

a searching unit for representing the stored data through the display to search the data; and

an external port for storing the data in an external storage unit or providing connection to an external unit to download, search, store or process the data, which is stored in the compressing storage memory, in a personal computer.

20. The portable surveillance camera according to claim 19, wherein the camera unit further comprises an image/sound decoder for decoding a received image and/or sound data,

the temporary storage memory temporarily stores the image and/or sound data,

the central processing unit compresses the image and/or sound data, and

the compressing storage memory stores the compressed image and/or sound data.

21. The portable surveillance camera according to claim 19, wherein the camera unit further comprises:

a FIFO memory for performing a buffer function;

a CPLD module for temporarily storing and transmitting the data in the FIFO to adjust data input and output speed so that the data is read through an externally installed monitor; and

an image/sound encoder for outputting data received from the CPLD module to an external image processing unit.

22. The portable surveillance camera according to claim 19, wherein the camera unit further comprises a removable chipset memory for storing the compressed data.

23. The portable surveillance camera according to claim 19, wherein the camera unit further comprises a removable view finder for easily displaying a boundary of images captured by the mini-camera.

24. The portable surveillance camera according to claim 19, wherein the camera unit further comprises an infrared LED for providing a light source for night photographing.

25. The portable surveillance camera according to claim 19, wherein the camera unit is capable of regulating a time interval for capturing an image to prevent power consumption.

26. The portable surveillance camera according to claim 19, wherein the camera unit has an automatic focus control function with respect to an object located at a distance of more than 40cm.

27. The portable surveillance camera according to claim 18, further comprising:

a sensor connection unit for connecting at least one or more sensors selected from movement, fire, heat, gas, door open and close sensors; and

a unit for processing a signal inputted from the sensor and generating an event signal to provide a signal for controlling the operation of the alarm when a

predetermined event is generated.